with the first two types, the third gall seems to be extremely rare and was collected only once from Vellore (Tamil Nadu).

The Gall: The midge larva, mostly singly, enters into the slender axis of the axillary bud through the cortex somewhere near the base (figure 2). While the larva is in the cortex there is no sign of ceccidogenetic effect. Later, the larva migrates to the pith where it starts feeding on the tissue. Only then the ceccidogeny initiates. The different tissues of the young axis which are at various levels of differentiation become deviated from their normal sequence of histogenesis. They undergo extensive hyperplasia followed by hypertrophy and the apical meristem of the axillary bud ceases to function; the leaf initials do not develop further beyond the primordial stage and the internodal elongation is also arrested. The total result of all these modifications is that the axillary bud develops into a fleshy, flask-shaped body bearing the leaf rudiments on the surface (figure 1).

A mature gall is smooth; yellowish green, indi- scent and fleshy with a single axial larval chamber which opens to the exterior through a narrow passage (figure 4). The gall measures 10 mm in length and 7 mm in breadth. The proliferating ground tissues of the gall rupture the cambial cylinder which subsequently gives rise to an anastomosing system of vascular tissues (figure 5). The other structures such as laticifers, medullary phloem and fibers seen in normal stem undergo less significant alterations (figures 3, 6).

As the larva matures, it escapes through the vertical canal-like exit passage. Some unidentified fungus is found occupying the larval cavity which does not seem to interfere with the morphogenesis of the gall. A similar instance of fungal occurrence was observed in the midge-induced foliar gall on Ipomoea staphylina previously mentioned. The mode of entry of the fungus and its role in the cecegody, if any, are worth investigating.

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ALLELOPATHY: SOME NEW TERMINALOGICAL CONSIDERATIONS

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MOLISCH\(^1\) who coined the term allelopath, referred to it as biochemical interactions between all types of plants including micro-organisms and considered both the detrimental and beneficial reciprocal biochemical interactions. However, the term allelopathy has subsequently referred to only harmful effect of one plant on another through production of specific chemicals. Rice\(^2\) modified the definition of Molisch to exclude beneficial effects. During 1974–79 the majority of the workers followed Rice’s definition. Later, however, Rice\(^3,4\) himself modified his version of definition and felt that the exclusion of beneficial effects seems highly artificial. In the past decade many workers have included both the deleterious and beneficial aspects in allelopathy\(^5,8\). However, we have often felt that apart from the controversy regarding the definition of allelopathy, there still remains some terminological ambiguities. In most cases the title of a paper rarely gives a clear idea whether the author has dealt with harmful or useful aspects of allelopathy. We propose here symbolic notations to cope with the above mentioned problems.

For a clear expression of harmful or beneficial effects it would be advantageous to use the positive (+) and negative (−) signs respectively before the term allelopathy. Further, if an allelopathic plant differentially behaves with two plants, i.e., its effect is beneficial to one and harmful to another, in such situations the use of (±) symbol with allelopathy/allelopathic . . . . would be self explanatory.

It is also being suggested that a worker engaged in allelopathic researches in general may be called an ‘allelopath’ and persons specifically involved in isolation, identification, biochemical characterisation and physiological aspects of allelopathy should be called an ‘allelochemist’.

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NUCLEAR BEHAVIOUR DURING GERMINATION OF UREDOSPORES OF *PUCCINIA ARACHIDIS* SPEG

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*Puccinia arachidis* Speg, incitant of rust of groundnut (*Arachis hypogaea* L.), has been reported from various parts of India. But no report is available regarding nuclear behaviour during development of infection structure by its uredospores which, in many rust fungi, is the prerequisite for establishment of intercellular hyphae within its host. The present paper deals with these studies.

The uredospores of *P. arachidis* were scraped from the freshly collected infected leaves and allowed to germinate in distilled water of different pH, varying from 2.5–7.5 (adjusted with normal NaOH or HCl at

**Figures 1–7.** 1. Binucleate uredospore. 2. Germinated uredospore. 3. Germ tube showing four nuclei. 4. Germ tube showing development of appressorium at its apical portion. 5. Appressorium containing four nuclei. 6. Infection structure showing appressorium, infection peg and quadrinucleate substomatal vesicle. 7. Apical portion of nondifferentiated germ tube showing sepal between the two nuclei.